

517,599

Rec'd PCT/PTO 13 DEC 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number  
WO 03/106458 A1(51) International Patent Classification<sup>7</sup>: C07D 473/00,  
473/30, 473/34, C07H 19/16Andras [HU/HU]; c/o Department of General and In-  
organic Chemistry, Eotvos Lorand University, Pazmany  
Peters 1/A, H-1117 Budapest (HU).

(21) International Application Number: PCT/JP03/07317

(22) International Filing Date: 10 June 2003 (10.06.2003)

(74) Agent: TAKASHIMA, Hajime; Fujimura Yamato Seimei  
Bldg., 2-14, Fushimimachi 4-chome, Chuo-ku, Osaka-shi,  
Osaka 541-0044 (JP).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
NO. 2002-175015 14 June 2002 (14.06.2002) JP(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK,  
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,  
MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,  
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VC, VN, YU, ZA, ZM, ZW.(71) Applicant (*for all designated States except US*): SUMIKA  
FINE CHEMICALS CO., LTD. [JP/JP]; 1-21, Utajima  
3-chome, Nishiyodogawa-ku, Osaka-shi, Osaka 555-0021  
(JP).(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

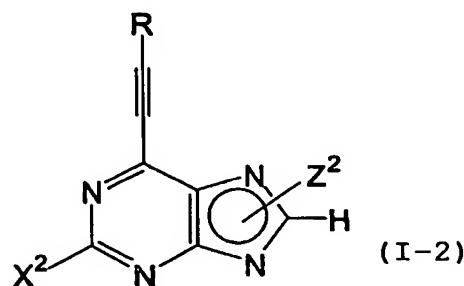
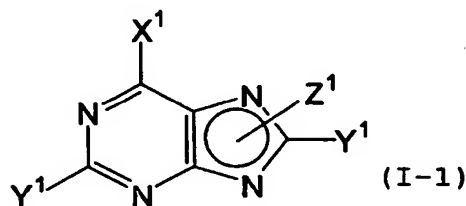
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): HAYASHI, Taketo  
[JP/JP]; c/o SUMIKA FINE CHEMICALS CO., LTD.  
Central Research Laboratories, 1-21, Utajima 3-chome,  
Nishiyodogawa-ku, Osaka-shi, Osaka 555-0021 (JP).  
KAWAKAMI, Takehiko [JP/JP]; c/o SUMIKA FINE  
CHEMICALS CO., LTD. Central Research Laboratories,  
1-21, Utajima 3-chome, Nishiyodogawa-ku, Osaka-shi,  
Osaka 555-0021 (JP). KUMAZAWA, Hiroharu [JP/JP];  
c/o SUMIKA FINE CHEMICALS CO., LTD. Central  
Research Laboratories, 1-21, Utajima 3-chome, Nishiy-  
odogawa-ku, Osaka-shi, Osaka 555-0021 (JP). KOTSCHY,**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

[Continued on next page]

(54) Title: ALKYNYPURINE COMPOUNDS AND PRODUCTION METHODS THEREOF



(57) **Abstract:** The present invention relates to alkynylpurine compounds represented by the following formula (I-1) and the formula (I-2): wherein each symbol is as defined in the present specification, salts thereof, and production methods thereof. According to the present invention, a method of producing an alkynylpurine compound and a salt thereof useful as an intermediate for medicament production safely, conveniently and economically from the corresponding purine compound and a salt thereof, as well as an alkynylpurine compound and a salt thereof useful as an intermediate for production of medicaments can be provided.

WO 03/106458 A1

**WO 03/106458 A1**



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*